The functional ecology of arable weeds: Reconstructing prehistoric farming practices through comparison with present-day 'traditional' agrosystems

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Abstract

This talk presents an overview of the role and potential of functional weed ecology in the study of agrosystems, present and past. In my work I have used functional traits of weed species as a means of comparing weed flora developed under known conditions in present-day 'traditional' farming regimes with weed flora associated with ancient crop remains in archaeobotanical assemblages. Using this approach it is possible to investigate the ecology of farming regimes from the initial establishment of agriculture in the Neolithic period onwards. Here I use case studies from western Asia and Europe to illustrate the potentials and limitations of this approach, and its integration with complementary techniques such as stable carbon and nitrogen isotope analysis of associated crop remains.

Keywords: Functional ecology, arable weeds, Neolithic, Prehistory, agroecology

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